

PATENT COOPERATION TREATY

REC'D 24 AUG 2000

PCT

WIPO

PC

INTERNATIONAL PRELIMINARY EXAMINATION REPORT



(PCT Article 36 and Rule 70)

15

Applicant's or agent's file reference CM1764Q/VB		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/US99/09782	International filing date (day/month/year) 05/05/1999	Priority date (day/month/year) 05/05/1998
International Patent Classification (IPC) or national classification and IPC B29D7/01		
Applicant THE PROCTER & GAMBLE COMPANY et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet. <input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of sheets.

3. This report contains indications relating to the following items: I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application
--

Date of submission of the demand 29/11/1999	Date of completion of this report 22.08.2000
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Welsch, H Telephone No. +49 89 2399 2907 

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/US99/09782

I. Basis of the report

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

Description, pages:

1-20 as originally filed

Claims, No.:

1-15 as originally filed

Drawings, sheets:

1/4-4/4 as originally filed

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/US99/09782

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims 1-15
	No: Claims
Inventive step (IS)	Yes: Claims 1-15
	No: Claims
Industrial applicability (IA)	Yes: Claims 1-15
	No: Claims

2. Citations and explanations

see separate sheet

1. Item V:

- 1.1 The application concerns a web material with a specific elongation behaviour and a process for making such webs.
- 1.2 Independent claim 1 - together with dependent claims 2 to 14 which concern particular embodiments of the subject-matter of claim 1 - define such web material with discontinuous expansion behaviour. It expands with relatively low resistance up to a certain extent and then shows a rapid increase in expansion tension.
- 1.3 Independent claim 15 defines the necessary process steps for making such a web.
- 1.4 Since the available prior art gives no decisive hints the subject-matter of the application appears to fulfill the requirements of Article 33(2) and (3) PCT.

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents
United States Patent and Trademark
Office
Box PCT
Washington, D.C. 20231
ÉTATS-UNIS D'AMÉRIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 12 January 2000 (12.01.00)	
International application No. PCT/US99/09782	Applicant's or agent's file reference CM1764Q/VB
International filing date (day/month/year) 05 May 1999 (05.05.99)	Priority date (day/month/year) 05 May 1998 (05.05.98)
Applicant FUCHS, Christofer et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
29 November 1999 (29.11.99)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Kiwa Mpay
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : B29D 7/01, B29C 55/18	A1	(11) International Publication Number: WO 99/56941 (43) International Publication Date: 11 November 1999 (11.11.99)																														
<p>(21) International Application Number: PCT/US99/09782</p> <p>(22) International Filing Date: 5 May 1999 (05.05.99)</p> <p>(30) Priority Data: 98108123.5 5 May 1998 (05.05.98) EP</p> <p>(71) Applicant (for all designated States except US): THE PROCTER & GAMBLE COMPANY [US/US]; One Procter & Gamble Plaza, Cincinnati, OH 45202 (US).</p> <p>(72) Inventors; and (75) Inventors/Applicants (for US only): FUCHS, Christofer [DE/DE]; Hartmurth 11, D-61476 Kronberg (DE). DIVO, Michael [DE/DE]; Feldbergstrasse 14, D-61381 Friedrichsdorf (DE). BUSAM, Ludwig [DE/DE]; Talstrasse 17, D-65510 Hunstetten (DE).</p> <p>(74) Agents: REED, T., David et al.; The Procter & Gamble Company, 5299 Spring Grove Avenue, Cincinnati, OH 45217-1087 (US).</p>		<p>(81) Designated States: AE, AL, AM, AT, AT (Utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), EE, EE (Utility model), ES, FI, FI (Utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (Utility model), SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p>Published <i>With international search report.</i></p>																														
<p>(54) Title: DISCONTINUOUSLY EXPANDABLE WEB MATERIALS</p>																																
<p>(57) Abstract</p> <p>The present invention is a web material which can be used in the production of large quantities of articles which are assembled from, inter alia, continuously fed web materials. In particular, the web material of the present invention can be expanded by a predetermined amount whilst exhibiting a relatively low resistance to expansion. This material property is assessed in the Discontinuous Expansion Test which determines the Relative Expansion Tension reduction during the discontinuous expansion. A web material according to the present invention has a Relative Expansion Tension Reduction of at least 50 %. Another object of the present invention is the process for making such discontinuously expandable web materials comprising the step of incorporating longitudinal expansion means and optionally tearable expansion obstruction means into the web material.</p> <div data-bbox="682 1134 1477 1869"> <table border="1"> <caption>Approximate data points from the graph</caption> <thead> <tr> <th>Elongation in %</th> <th>Expansion Tension in Newton per 0.0254 meter</th> </tr> </thead> <tbody> <tr><td>0</td><td>0</td></tr> <tr><td>10</td><td>6</td></tr> <tr><td>15</td><td>10</td></tr> <tr><td>20</td><td>1</td></tr> <tr><td>30</td><td>1</td></tr> <tr><td>40</td><td>2</td></tr> <tr><td>50</td><td>1</td></tr> <tr><td>60</td><td>1</td></tr> <tr><td>70</td><td>6</td></tr> <tr><td>80</td><td>12</td></tr> <tr><td>90</td><td>15</td></tr> <tr><td>100</td><td>17</td></tr> <tr><td>110</td><td>18</td></tr> <tr><td>120</td><td>0</td></tr> </tbody> </table> </div>			Elongation in %	Expansion Tension in Newton per 0.0254 meter	0	0	10	6	15	10	20	1	30	1	40	2	50	1	60	1	70	6	80	12	90	15	100	17	110	18	120	0
Elongation in %	Expansion Tension in Newton per 0.0254 meter																															
0	0																															
10	6																															
15	10																															
20	1																															
30	1																															
40	2																															
50	1																															
60	1																															
70	6																															
80	12																															
90	15																															
100	17																															
110	18																															
120	0																															

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece			TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	NZ	New Zealand		
CM	Cameroon			PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 99/09782

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 B29D7/01 B29C55/18

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 B29C B32B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2 474 124 A (SCHULTZ) 21 June 1949 (1949-06-21) column 3, line 40 - line 63; figure 2 ---	1, 15
A	EP 0 800 959 A (TAKATA CORP) 15 October 1997 (1997-10-15) column 5, line 6 - line 9 column 5, line 38 - line 45; figure 6 ---	1
A	EP 0 665 161 A (RASMUSSEN O B) 2 August 1995 (1995-08-02) page 9, line 1 - line 53; figures 4A, 5A ---	1, 15
A	GB 2 111 012 A (SECR DEFENCE) 29 June 1983 (1983-06-29) page 1, line 94 - line 107; figure 2 --- -/--	1

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

- 16 August 1999

Date of mailing of the international search report

26/08/1999

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Attalla, G

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/09782

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>US 5 691 035 A (MANSFIELD MICHELE A ET AL) 25 November 1997 (1997-11-25) cited in the application figure 6</p> <p>-----</p>	1,15

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 99/09782

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2474124 A	21-06-1949	NONE	
EP 0800959 A	15-10-1997	JP 9272389 A	21-10-1997
EP 0665161 A	02-08-1995	AT 130566 T	15-12-1995
		AT 177385 T	15-03-1999
		AU 637047 B	20-05-1993
		AU 3444689 A	24-11-1989
		CA 1332024 A	20-09-1994
		CN 1038786 A,B	17-01-1990
		DE 68924865 D	04-01-1996
		DE 68924865 T	14-11-1996
		DE 68928948 D	15-04-1999
		DK 250590 A	17-12-1990
		EP 0338747 A	25-10-1989
		EP 0411007 A	06-02-1991
		ES 2082773 T	01-04-1996
		WO 8910312 A	02-11-1989
		GR 3019032 T	31-05-1996
		HK 1007543 A	16-04-1999
		IE 72159 B	26-03-1997
		JP 2632583 B	23-07-1997
		JP 3505184 T	14-11-1991
		MX 169245 B	25-06-1993
		NO 302876 B	04-05-1998
		PT 90306 A,B	10-11-1989
		RU 2050310 C	20-12-1995
		US 5205650 A	27-04-1993
		US 5330133 A	19-07-1994
GB 2111012 A	29-06-1983	NONE	
US 5691035 A	25-11-1997	US 5518801 A	21-05-1996
		AU 7370294 A	28-02-1995
		BR 9407220 A	17-09-1996
		CA 2168771 A	09-02-1995
		CN 1132471 A	02-10-1996
		CZ 9600307 A	17-07-1996
		DE 69418043 D	27-05-1999
		EP 0712304 A	22-05-1996
		ES 2131204 T	16-07-1999
		FI 960495 A	02-04-1996
		HU 73593 A	28-08-1996
		JP 9501847 T	25-02-1997
		NO 960424 A	02-04-1996
		NZ 269985 A	26-06-1998
		SG 55162 A	21-12-1998
		WO 9503765 A	09-02-1995
		US 5723087 A	03-03-1998
		US 5891544 A	06-04-1999
		US 5916663 A	29-06-1996

Minimum documentation searched (classification system followed by classification symbols)
IPC 6 D06C D06M D04H A61F A41B B29C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<input checked="" type="checkbox"/>	Further documents are listed in the continuation of box C.	<input checked="" type="checkbox"/>	Patent family members are listed in annex.
° Special categories of cited documents :			

^o Special categories of cited documents :

"P" document published prior to the international filing date but later than the priority date claimed

"&" document member of the same patent family

Date of the actual completion of the international search

24 August 1999

Date of mailing of the international search report

31/08/1999

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Mirza, A

INTERNATIONAL SEARCH REPORT

Inter. Application No

PCT/US 99/09783

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 259 902 A (MUCKENFUHS DELMAR R) 9 November 1993 (1993-11-09) column 1, line 55 - column 2, line 12; claims; figures	1,4
A	column 5, line 59 - line 68 column 11, line 27 - line 35 ---	2,3,5, 11,12
X	DE 28 10 680 A (HARTMANN PAUL AG) 20 September 1979 (1979-09-20) claims; figures	1,4
A	---	11
X	US 5 468 428 A (HANSCHEN THOMAS P ET AL) 21 November 1995 (1995-11-21) column 18, line 21 - line 28; claims; examples; tables	1,4
A	---	11
X	US 3 694 815 A (BURGER WILLIAM H) 3 October 1972 (1972-10-03) the whole document	1
A	---	2,3,11
A	EP 0 572 116 A (KATO TALL ;ZIN CO LTD (JP)) 1 December 1993 (1993-12-01) abstract; figures -----	1